GOVERNMENT OF ANDHRA PRADESH
ABSTRACT

Energy Department –Formulation Andhra Pradesh Pumped Storage Power Promotion Policy -2022-Orders –Issued.

ENERGY (POWER.II) DEPARTMENT

G.O.Ms.No.25 **Dated:20-12-2022.**

ORDER:

Government hereby notify the following Andhra Pradesh Pumped Storage Power Promotion Policy-2022 for promotion of Pumped Storage Hydro Projects in the State: -

1. Preamble

1.1 Today, world is in the midst of a major transition to clean energy due to growing concerns of climate change and global warming. The 2015 Paris agreement, followed by the CoP 26 summit (26th Conference of Parties) held during 2021, under the **United Nations Framework Convention on Climate Change (UNFCCC)** targeted to limit the increase in global warming by 2oC and achieve **"Net Zero"** emissions by the year 2050. Honorable Prime Minister of India, Shri Narendra Modi ji on his part presented **"Panchamrit"** to deal with this challenge and pledged to achieve **"Net Zero by 2070"**.

1.2 Realizing the importance of Renewable Energy (RE) in combating the climate change and enhancing the energy security, Government of India has committed to install about **50%** cumulative capacity from non-fossil fuel-based energy resources by 2030. Further, in order to encourage the installation of RE plants, Ministry of Power (MoP) has introduced Renewable Purchase Obligations (RPO) for the DISCOMs to procure **43.33%** of total energy requirement from RE sources by FY 2030.

1.3 Renewable Energy has started playing an increasingly important role worldwide in augmentation of grid power, providing energy access, reducing the consumption of fossil fuels thereby mitigating the climate change challenges. The Government of India has also committed to meet 50% of the energy requirements from renewables and increasing renewable energy capacity to 500 GW by 2030. Further, in order to encourage the installation of RE plants, Ministry of Power (MoP) has introduced Hydro Power Purchase Obligations (HPO) and Energy Storage Obligations (ESO) for the DISCOMs in the country.

1.4 Andhra Pradesh is playing a pivotal role in supporting Government of India's various initiatives in the energy domain and has been rolling out multiple programs, policies and incentives to accelerate development of RE sector in the State. With the expected variable RE capacity addition in the near

future particularly intermittent sources such as solar and wind due to the promotional policies of Govt. of India and Govt. of Andhra Pradesh, there is a need to manage concerns related to balancing power grid and its security and stability and Energy Storage Systems will play an important role in addressing variations in Regeneration. Identifying the importance of Energy Storage Systems, Ministry of Power (MoP) has introduced Energy Storage Obligations (ESO) for the DISCOMs to procure **4%** of total RPO requirement through Energy Storage systems by FY 2030.

1.5. Out of all storage technologies, Pumped Hydro Storage Project (PSP) is a well established and matured technology and can play an immensely important role in facilitating improved energy security and transition to a lower cost, low carbon electricity market that will require flexible, dispatchable, as well as peak power capacity.

1.6 Andhra Pradesh is in forefront in the country in identifying potential PSP sites of 33,240 MW capacity near to the existing reservoirs and off-river locations for promotion of Pumped Storage Hydro Power Projects. Taking into consideration the RE capacity addition targets, HPO targets and the huge PSP potential within the State, the State Government in order to encourage, develop and promote PSP projects by developers decided to notify "Andhra Pradesh Pumped Storage Hydro Power Projects Policy 2022".

2. Objectives

i. To harness the potential of 33 GW PSP capacity available in the State

ii. To support in meeting Renewable Purchase Obligation targets set by Central government for balancing/ peak requirement of power at National and State levels.

iii. To facilitate development of Pumped Storage Hydro Power Projects (PSP) within the state.

iv. To attract private investments, generate revenue to State Government, generate employment and improve State economy.

v. To facilitate private investments for developing PSP projects in fast track mode.

vi. To procure power from Pumped Storage projects plants by the DISCOMs, if required, to meet HPO, ESO etc.

3. Operative Period

The policy shall come into operation with effect from the date of issuance and shall remain applicable for a period of **ten (10)** years or shall remain in force till such time a new policy is issued. Since the Pumped Hydro Storage

Project (PSP) is a well established and matured technology out of all storage technologies, State Government have already granted permission to certain Developers for establishment of such projects and they have taken steps to implement the Projects. The Policy shall also cover these Pumped Storage Projects already allotted by the Government in the recent past which are being implemented by the respective Developers.

4. Eligible Developers

Any developer setting up the PSPs either for Captive/ Group Captive use and/ or for selling of electricity to the utilities or third parties within the State or export to other States, in accordance with the relevant Central/State regulations and / or Standard Bidding Guidelines (SBGs) issued and amended from time to time.

5. Resource Allocation

Project may be identified by either the Nodal Agency or the Developer. The allocation of resources to the developers shall be done as per the following process,

a. The Developer shall submit Detailed Proposals to the Nodal Agency along with project details, technical & financial strengths, timelines for completion, etc. The proposals, after scrutiny by the Nodal Agency, will be placed before the AP State Investment Promotion Committee (SIPC) and AP State Investment Promotion Board (SIPB) for consideration.

b. In case of sites identified by the Developer, the Developer shall seek approval of the Nodal Agency after paying necessary charges as detailed out in this policy.

c. The Developer shall obtain all statutory clearances that are required from Central and State Governments. The Nodal Agency will extend necessary support to get the clearances.

d. The Developer shall bear the entire cost of the project from investigation to commissioning and subsequent operation and maintenance.

e. Nodal Agency shall not bear liability of any kind on part of Developer

i. <u>Detailed Project Report(DPR):</u>

a. For the sites identified by Nodal Agency, Process of DPR preparation is undertaken by the Nodal Agency including clearances till date of allotment of project to the Developer.

b. Developer will take over the responsibility of balance process of DPR preparation and obtaining clearances from the date of allotment of project by paying the cost incurred by Nodal Agency till the date of allotment of the project and up to the date the responsibility of DPR & clearances shall stand transferred to the Developer.

c. Nodal Agency will work with the developer for balance process of DPR preparation and obtaining remaining clearances.

ii. Timeline for Completion of Project:

a. Time for completion of projects for which DPR is under progress shall be six (6) years from the date of allotment of project by Nodal Agency and handing over of entire revenue land available, if any, in the project site.

The various activities of the project shall be completed as per the following timelines:

b. **Preparation of DPR and obtaining of clearances/ approvals(M1):** Two (2) years from the date of allotment of project by Nodal Agency

c. **Land acquisition (M2):**100% within Three (3) years from the date of allotment of project by Nodal Agency

d. **Financial closure (M3):** Within three (3) years from the date of allotment of project by Nodal Agency.

e. **50% of Civil, E&M and H&M works (M4):** Within five (5) years from the date of allotment of project by Nodal Agency

f. **100% of works and commissioning of the project (M5):** Within six (6) years from the date of allotment of project by Nodal Agency and handing over of entire revenue land available, if any, in the project site.

iii. Periodic Review of the Project:

a. Nodal Agency in an endeavor to complete the project within six (6) years shall undertake periodic reviews and shall obtain project progress reports from the Developers.

b. Nodal Agency may engage Project Management Consultants for managing various aspects of PSPs including development, planning, strategy, and implementation for timely completion of the project.

6. Utilization of Power

It shall be the responsibility of the project developer to identify customers for storage services from these PSP projects.

7. Land Facilitation to the Developer

i. Nodal Agency will identify land (private, government, forest and compensatory afforestation land) and start the process of aggregating the land till date of allotment of project to the Developer.

ii. Developers will have a mix of following options:

a) **Government Land:**

Allocation of Government land for the project components as well as for compensatory afforestation purpose shall have the following options:

i.Lease: Lease rate of INR 31,000 per acre per year with an escalation of 5% every two years during the project period (40 years operation period and 6 years construction period, totaling to 46 years).The lease rate at the end of the project period will be re-determined by the Government.

ii.Alienation: Government land will be alienated to the developers as per the decision of the Government.

b) **Forest land**:

Developer shall apply for diversion of the forest land as per procedures/guidelines laid by respective Departments and by paying applicable charges in full, if any.

c) **Private land:**

Nodal Agency shall facilitate acquisition of private land on either lease basis or acquisition.

iii. In case of land lease, the lease rate of INR 31,000 per acre per year will be charged to the Developer with an escalation of 5% every two years during the project period. Out of Rs. 31,000 per acre per annum, an amount of Rs. 30,000 per acre per annum will be paid to the private land owner. An amount of INR 1,000 per acre per annum will be remitted to the State Govt.

iv. In case of acquisition of private land, mutually negotiated terms and conditions between the private Land owner and the Developer shall prevail.

8. Charges to be Paid by the Developers

i. Green Energy Development Charge: Developers shall pay green energy development charges from CoD @ INR 1 Lakh per MW per year for first 25 years and INR 2 Lakh per MW per year for the remaining period of the project.

ii. Facilitation Charges (One-Time): Developers shall pay INR 50,000 per MW to the Nodal Agency towards facilitation charges.

iii. Local Area Development: Developers shall follow the guidelines issued by the Government of India from time to time for promotion of Hydro Power Projects.

iv. Rehabilitation & Resettlement: Developers shall mandatorily follow the provisions of Rehabilitation & Resettlement Policy of the Government of India and Government of Andhra Pradesh scrupulously at their own cost.

9. Incentives

i. Nodal Agency will support and facilitate the project for availing grants of special category projects under Central Government schemes.
ii. Nodal Agency will facilitate the project for availing benefits provided as per National Energy Storage Policy without any financial commitment from Govt. of Andhra Pradesh.
iii. PSP projects shall be treated as eligible industry under the Mega Industry schemes administered by the Industries Department and incentives available to industrial units under such schemes shall be made available.
iv. PSPs shall be exempted from obtaining any NOC/Consent for establishment under pollution control laws from AP Pollution Control Board.
v. The services of single desk portal shall be made available for obtaining time bound statutory clearances for PSP projects.
vi. Land allocated for construction of PSP projects shall be accorded deemed Non- Agricultural (NA) status on payment of applicable statutory fees.
vii. On request of developer, for utilizing the expertise, APGENCO/APTRANSCO may provide services, subject to availability, in the areas of planning, construction and operation of PSPs, Nodal Agency shall facilitate the consultancy services of APGENCO/APTRANSCO.

10. Input Power

i. In case the Developer is interested to set up captive solar/wind power plant for the purpose of meeting input power requirement for PSP, the Nodal Agency shall facilitate allotment of project as per the prevailing terms under 'Andhra Pradesh RE Export Policy, 2020', 'Andhra Pradesh Wind Power Policy, 2018' and 'Andhra Pradesh Solar Power Policy,2018'.
ii. Energy Banking facility will not be extended for such captive solar/wind power plants.

11. Evacuation

i. Connection to Central Transmission Utility (CTU) Network:
   a. In case the project Developer proposes to export power generated to other States by injecting to the CTU substation, the transmission line from generation point to the CTU shall be laid by the Developer at his own cost by following the relevant procedures/regulations. All liabilities on account of connecting to CTU shall be borne by the Developer.

ii. Connection to State Transmission Utility(STU)network:
   a. In case the project Developer proposes to utilize the power within the State, APTRANSCO shall extend the connectivity to its intra state transmission system as per the prevailing procedures/regulations.
   b. The project developer shall lay the transmission line from generation point to the grid substation at his own cost under the supervision of APTRANSCO and hand over the same to the APTRANSCO. Alternatively, the connecting line may be built by APTRANSCO at the cost of the Developer if the Developer so chooses.

12. Nodal Agency

i. New & Renewable Energy Development Corporation of Andhra Pradesh Ltd. (NREDCAP) shall act as a Nodal Agency under this policy.

ii. The Nodal Agency shall be responsible for the following activities:

   a. Identification of PSP projects within the State

   b. Preparation of DPRs for the identified PSP projects

   c. Facilitate land aggregation for the Developer.

   d. Assist the Developer in obtaining all the statutory clearances/ approvals required for implementation of the projects

   e. Facilitate water allocation on priority as per the Industrial Water Supply Policy / Guidelines and subject to guidelines issued by the Water Resources Department.

13. Interim Review

State Government may undertake interim review of this policy as and when need arises in view of any technological breakthroughs or to remove any inconsistency with Electricity Act 2003, rules and regulations made there under or any Government of India policy.

14. Power to Remove Difficulties

If any difficulty arises in giving effect to this policy, State Government (Energy department) is authorized to issue clarifications as well as interpretation to such provisions, as may appear to be necessary for removing the difficulty either on its own motion or after hearing those parties who have represented for change in any provision.

15. Miscellaneous

All projects which are already allotted before notification of this policy will be aligned as per the provisions of this policy.

16. The Vice-Chairman & Managing Director, NREDCAP, Tadepalli, Guntur District shall take necessary action accordingly.

17. This order issues with the concurrence of the Finance Department videU.O.NO.FIN01-FMU0ASD(IIE)/18/2022-FMUIIEIC (Computer.No:1917037), dated:5-12-2022**.**

(BY ORDER AND IN THE NAME OF THE GOVERNOR OF ANDHRA PRADESH)

K. VIJAYANAND
SPECIAL CHIEF SECRETARY TO GOVERNMENT

To
The Vice-Chairman & Managing Director,
New and Renewable Energy Development Corporation of Andhra Pradesh Ltd.,Tadepalli, Guntur Dist.
The Managing Director, APGENCO, Vijayawada.
The Chairman & Managing Directors, APTRANSCO, Vijayawada.
The Managing Director, APSPCL, Tadepalli, Guntur District.
The Member-Convenor, APPCC, Vijayawada.
The Chairman & Managing Director, APSPDCL/APCPDCL/APEPDPCL, Tirupati/Vijayawada/Visakhapatnam
The Special Chief Secretary to Govt, Revenue/EFS & T Department
The Principal Secretary to Government, Water Resources Department

Copy to:
The Secretary to Government of India.
Ministry of Power/MNRE, New Delhi.
The OSD to Minister for Energy, EFS & T, Mines and Geology,
The Secretary to CM.
The P.S to Special Chief Secretary to Government, Energy Dept.
SF/SC.

//FORWARDED::BY ORDER//

SECTION OFFICER

Signed by Vani Kinthada
Date: 21-12-2022 16:49:52
Reason: Approved